

**\*75075\***

October-17-11 10:49:35 AM

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

\*10\*

**Cust Item ID:**

**\*10\***

**Customer:**

**Reference:**

### Tooling:

Date:

Run Start \*NR1\*

**QC:**

Date:

**SPC (Y/N):**

Date:

Stop \*NR2\*

<b>Draw Nbr</b>	<b>Revision Nbr</b>
D3294	Rev C

0.00

**\*100\***

### Waterjet

FLOW CNC Waterjet

2024. 05

## Memo

1-Cut as per Dwg D3294

CUt File D3294-3

Dwg Rev: C

Prog Rev: 7

\*grain direction on a 45 deg as per dwg\*\*

2-Deburr if necessary

BB-10-22

0.00

B11-10-26

(10)

110

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*110\***

QC

## Quality Control

## Memo

0.00

B11-10-2c

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 75075

October-17-11 10:49:35 AM

**\*75075\***

Page 2

Item ID: D3294-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket  
 Start Date: 17/10/2011 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 28/10/2011 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00		Sulco 128		(40)			
130 <b>*130*</b> Brake NC Brake NC	Memo 1-Deburr if necessary 2-Bend as per Dwg D3294 (Ensure angle is correct)	0.00 0.00		SB 11/12/13		(10)			
140 <b>*140*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00		S 11/12/13		(40)			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 75075

**\*75075\***

Page 3

October-17-11 10:49:35 AM

Item ID: D3294-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket  
 Start Date: 17/10/2011 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 28/10/2011 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*150*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
160	QC3- Inspect Part Finish	0.00							
<b>*160*</b>									
QC	Memo	0.00							
Quality Control									
170		0.00							
<b>*170*</b>									
Small Fab	Memo	0.00							
Small Fab	1-Install D3294-5 doubler to D3294-3 bracket with rivets as per dwg. D3294								

10x0 M-11/12/13

10 B 11-12-13

EP 11/12/14 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Work Order ID 75075****\*75075\***

Page 5

October-17-11 10:49:35 AM

Item ID: D3294-1

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Bracket

Start Date: 17/10/2011 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 28/10/2011 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Identify as per dwg & Stock Location: <u>212</u>	0.00							
<b>*210*</b>									
Packaging	Memo	0.00							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
<b>*220*</b>									
QC	Memo	0.00							
Quality Control									

11-12-20  
(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

October-17-11 10:49:40 AM

Page 1

Work Order ID: 75075

**\*75075\***

Parent Item: D3294-1

**\*D3294-1\***

Parent Item Name: Bracket

Start Date: 17/10/2011

Required Date: 28/10/2011

Start Qty: 10.00

Required Qty: 10.00

## Comments:

IPP A04.08.24New issueKJ/JLM  
IPP Rev:B Now On Waterjet 07-03-26 JLM  
IPP Rev:C 08-07-16 Redesign part DD verified by:EC  
IPP Rev:D 08-10-06 revB as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.080		Purchased	No			100	sf	245.3000	1.8	18.94737			

**\*M2024T3S 080\***

2024-T3 .080 sheet

\*\*

B11-10-26

Location	Loc Qty	Loc Code
MAT022	245.3	
105411	6	
109424	4	
110347	0.5	
112331	3	
113796	7	
114025	15.7	
116604	5.8	
117392	40.1	
118180	67.2	
119117	96	

D3294-5

Manufactured No

170

Each

1.0000

1

10

**\*D3294-5\***

Doubler

\*\*

Location	Loc Qty	Loc Code
GA	1	
69525	1	

B11/12/14  
B74524 (9x)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

October-17-11 10:49:40 AM

Page 2

Work Order ID: 75075

**\*75075\***

Parent Item: D3294-1

**\*D3294-1\***

Parent Item Name: Bracket

Start Date: 17/10/2011

Required Date: 28/10/2011

Start Qty: 10.00

Required Qty: 10.00

~~MS20470AD4-5~~

Purchased

No

170

Each

2,424.000

15

150

**\*MS20470AD4-5\***

Rivet, Universal Head

\*\*

*EP 11/2/14*

150

Location

Loc Qty

Loc Code

ST319

2424

116893

68

118405

2356

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	75073
<b>Description:</b> Bracket Assembly		<b>Part Number:</b>	D3294-1
<b>Inspection Dwg:</b> D3294	<b>Rev:</b> C	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

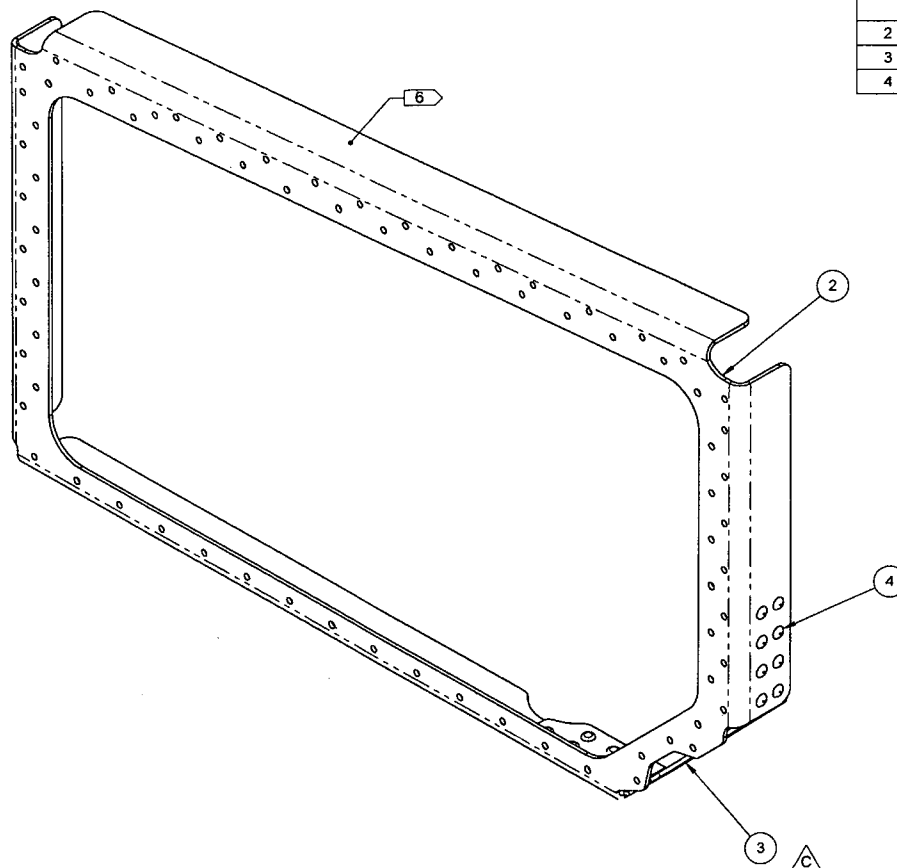
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	.130	2		V R02	
Ø0.141	+0.005/-0.001	.141	2		V	
6.708	+/-0.010	6.713	2		V	
1.118	+/-0.010	1.119	2		V	
5.590	+/-0.010	5.593	2		V	
1.118	+/-0.010	1.115	2		V	
13.563	+/-0.010	13.563	2		T R01	
1.043	+/-0.010	1.040	2		V	
0.625	+/-0.010	.624	2		V	
0.325	+/-0.010	.324	2		V	
0.300	+/-0.010	.301	2		V	
0.400	+/-0.010	.400	2		V	
6.000	+/-0.010	6.003	2		V	
1.000	+/-0.010	1.004	2		V	
17.124	+/-0.010	17.124	2		T	
16.13	+/-0.030	16.13	2		T	
7.27	+/-0.030	7.273	2		P	
11.97	+/-0.030	11.97	2		P	
8.37	+/-0.030	8.372	2		P	
20.05	+/-0.030	20.05	2		T	
12.98	+/-0.030	12.98	2		T	
14.59	+/-0.030	14.59	2		T	
11.66	+/-0.030	11.66	2		P	
0.080	+/-0.010	.081	2		V	

<b>Measured by:</b> RB	<b>Audited by:</b> S	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 11-10-20	<b>Date:</b> 11/10/20	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	04.08.24	New Issue	KJ/JLM	
B	06.03.09	Dimension 12.97 was 13.03	KJ/JLM	
C	08.11.27	Dimensions updated per Dwg Rev B	KJ/EC	
D	09.07.29	Dimension 2.100 was 2.072	KJ	
E	09.09.14	Dimensions updated per Dwg Rev C	KJ	

ITEM NO.	QTY. -1	PART NUMBER	DESCRIPTION
1	X	D3294-1	BRACKET ASSEMBLY
2	1	D3294-3	BRACKET
3	1	D3294-5	DOUBLER
4	15	MS20470AD4-5	RIVET



**D3294-1 BRACKET ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "BLACK" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3294-1 AND B/N" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.83 lbs

SHOP COPY  
 RETURNED  
 ENCLOSURE  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 75025

RELEASED  
 09/04/07 JAW

C	REMOVE FLANGE PREVIOUSLY ADDED. ADD -5 DOUBLER ZN A4-1, SHEET 5+6.	HS	09.03.24
B	CHANGE FLANGE FROM OUTSIDE TO INSIDE, ZN B4-1, C3-2. CHANGE GRAIN DIRECTION, ZN C4-2	HS	08.09.22
A	NEW ISSUE	CP	04.06.28
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.03.24		

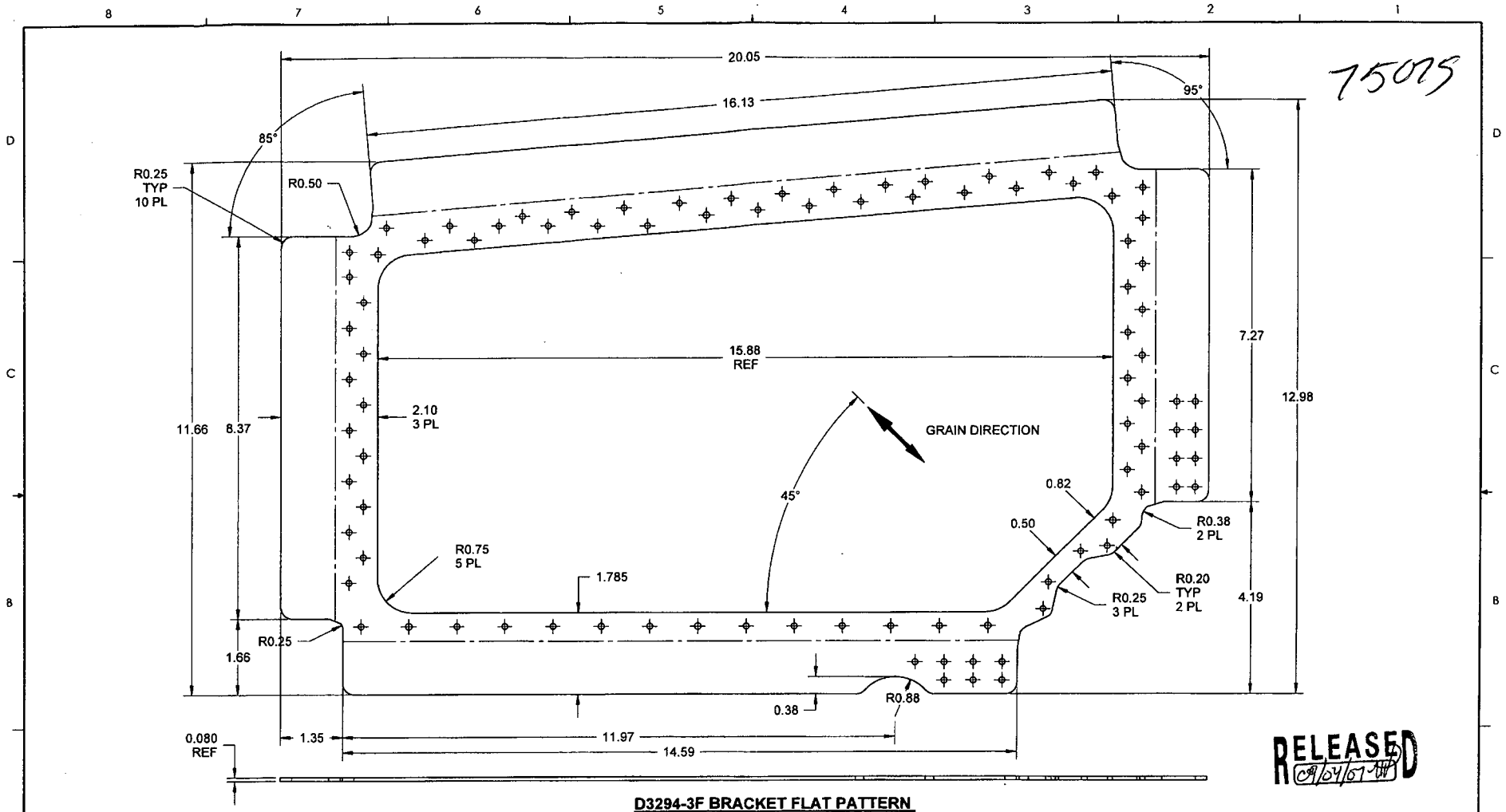
**DART AEROSPACE LTD**  
 HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3294  
 TITLE BRACKET  
 REV. C  
 SHEET 1 OF 6  
 SCALE NTS

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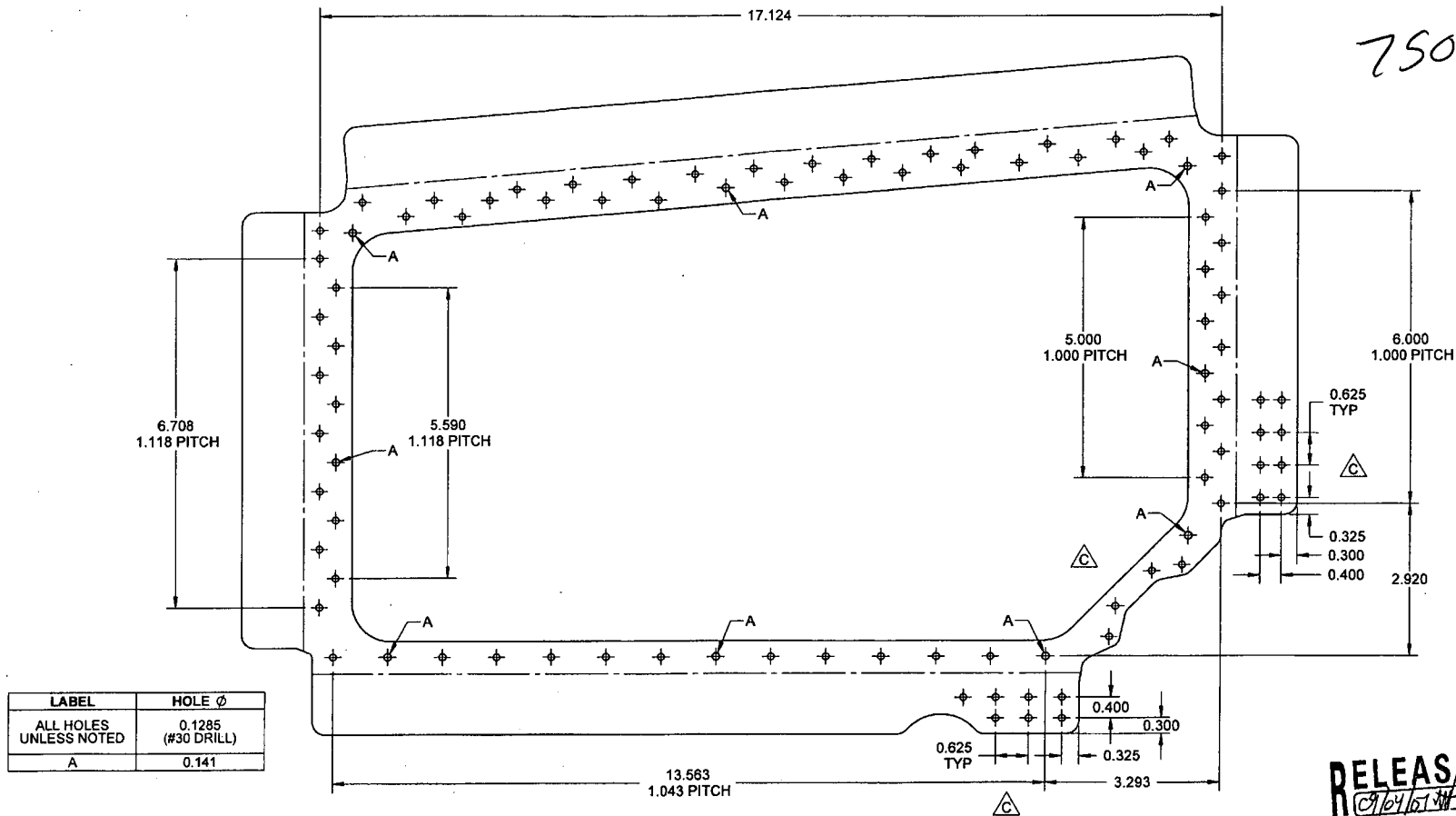
**NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET 0.080 THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.080)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.75 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3294	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	09.03.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

75075



LABEL	HOLE Ø
ALL HOLES UNLESS NOTED	0.1285 (#30 DRILL)
A	0.141

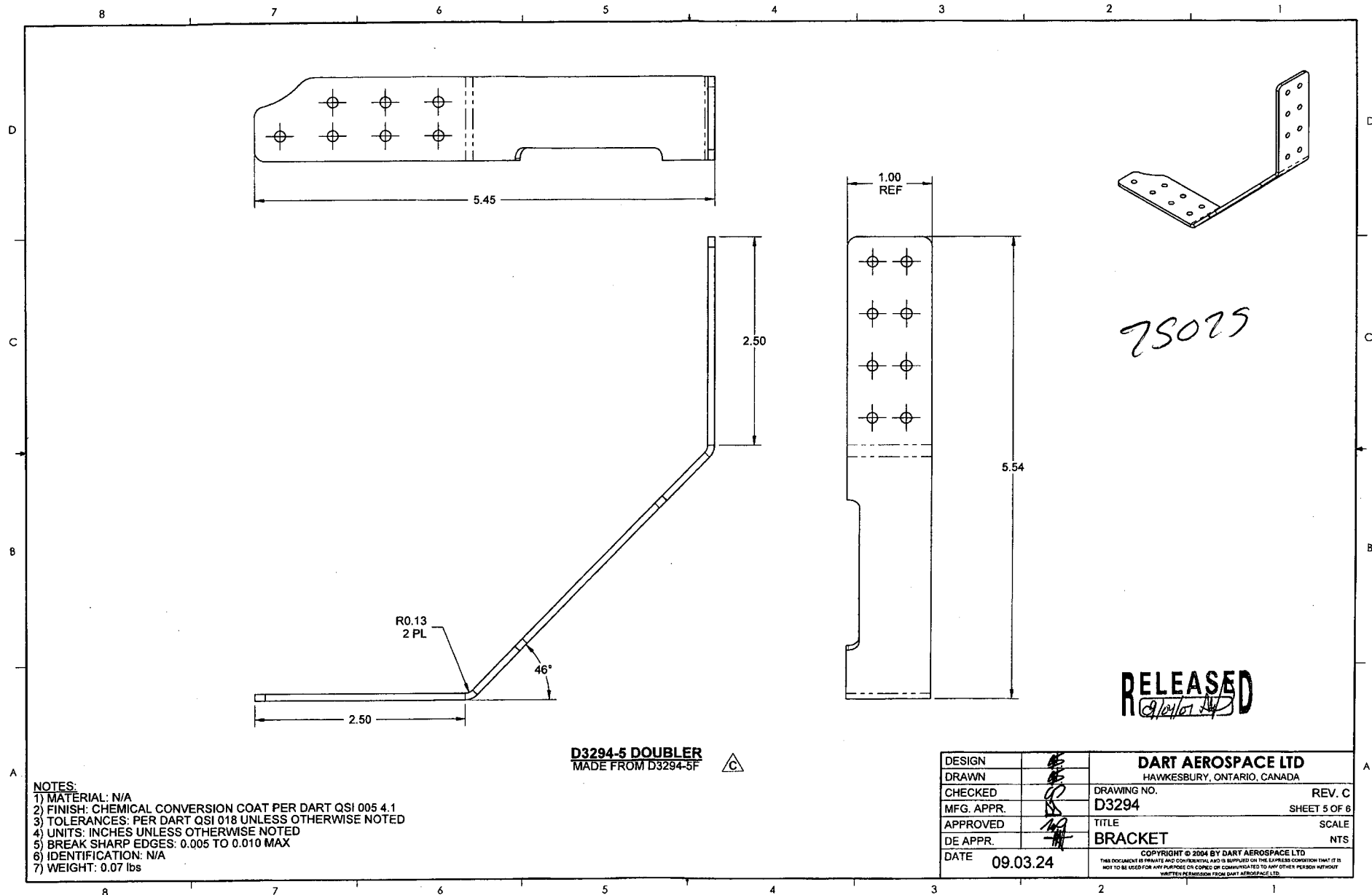
**D3294-3F BRACKET FLAT PATTERN**  
SUPPLEMENTAL

**RELEASED**  
09/04/01

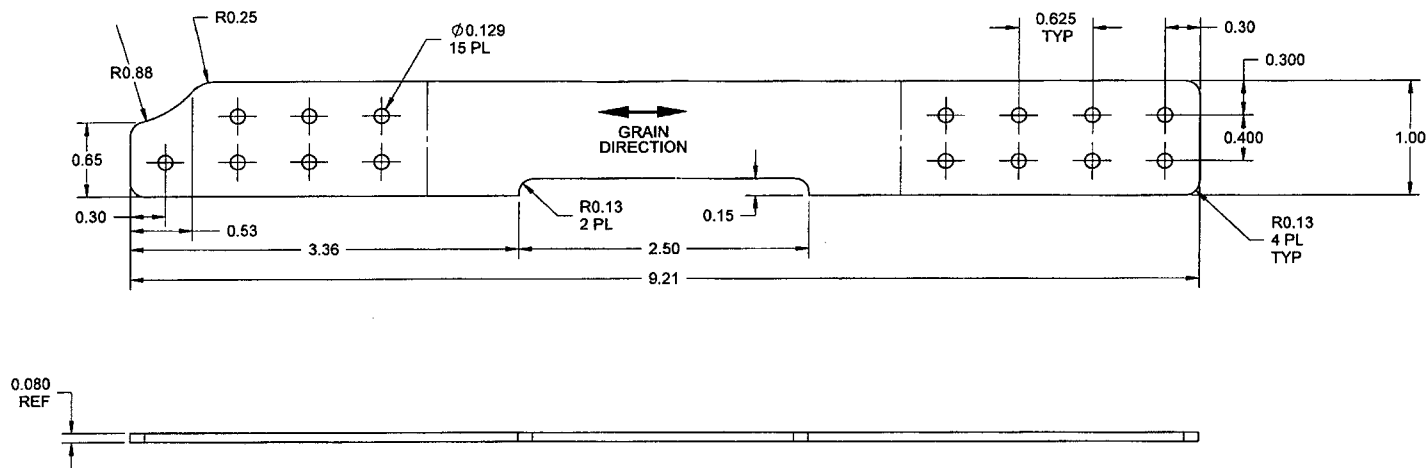
DESIGN		<b>DART AEROSPACE LTD</b>
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. <b>D3294</b>
MFG. APPR.		REV. C
APPROVED		SHEET 4 OF 6
DE APPR.		TITLE <b>BRACKET</b>
DATE	09.03.24	SCALE NTS

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8 7 6 5 4 3 2 1



75075



**D3294-5F DOUBLER FLAT PATTERN**



**RELEASED**  
09/04/07

**NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET 0.080 THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.080)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.07 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3294	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
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